

Homework for Today Monday Feb 27

Absent

6A Cheyanne C., Ryleigh G., Olivia M., Cayle P

6B Harlee M

6C Kalei Q Derick M

Science - Diffusion / Osmosis WS, Turn in ~~the~~ Textbook 34-41
Test FRI over Cells / Parts / Microscope

Social Studies - Ch. Review due today
Review for test on Wed over ch. 6 (use study guide)

Reading - Vocab Word Ladder p. 9
- "The Crossover" book Vocab. matching
for pages 3-20

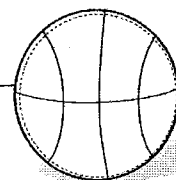
English / Language Arts - Read pages 3-20 of "The Crossover"
- Google Classroom Response
Questions & Poetry Prompt
- HW: Reading Response Box & READ!

Math - Ratio Tables Activities

Other -

The Crossover

Name Example



Vocabulary Words for Pages 3-20

Write the definition for each of the vocabulary words.
You can use a dictionary, or if you know the definition,
write it in your own words.

acclaimed pg. 4 To welcome or salute with shouts or sounds of joy and approval	dubious pg. 10 Hesitating or doubting
banished pg. 13 To depart/send away	posterizing pg. 14 A basketball term meaning to embarrass someone usually while slam dunking the ball over them
confrontational pg. 16 The act of opposing groups confronting each other	feelers pg. 17 Attempting to figure out someone's opinion or attitude

Use two of the words in a sentence.

Name _____


Read the clues, then write the words.
Start at the bottom and climb to the top.



Outerwear



____ be nimble, ____ be quick.
Change one letter.

 To write quickly.
Change one letter.

What musicians read
to play music.
Rearrange the letters.

2,000 pounds.
Change one letter.

To make sweet.
Add two letters.

Perspiration.
Take away two letters.

Worn for warmth.
Add two letters.

Slang for an athlete.
**Take away the last
letter, then add two.**

This word makes a
statement negative.
Take away two letters.

A small rock.
Add two letters.

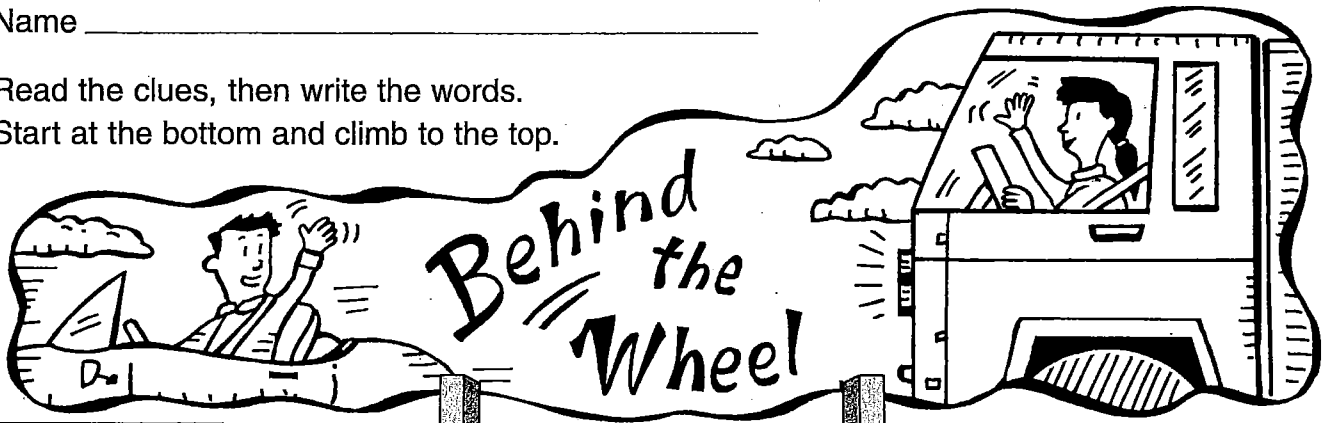
Number of cents in a dime.
Take away four letters.

Opposite of sour.
Change one letter.

s w e a t e r

Name _____

Read the clues, then write the words.
Start at the bottom and climb to the top.



Someone who operates a car.
Add one letter.

To go into water headfirst.
Change one letter.

To challenge someone to do something.
Change one letter.



A stringed musical instrument.
Take away one letter.

To give part of what you have to others.
Change one letter.

A mark left on the skin from a wound.
Add one letter.

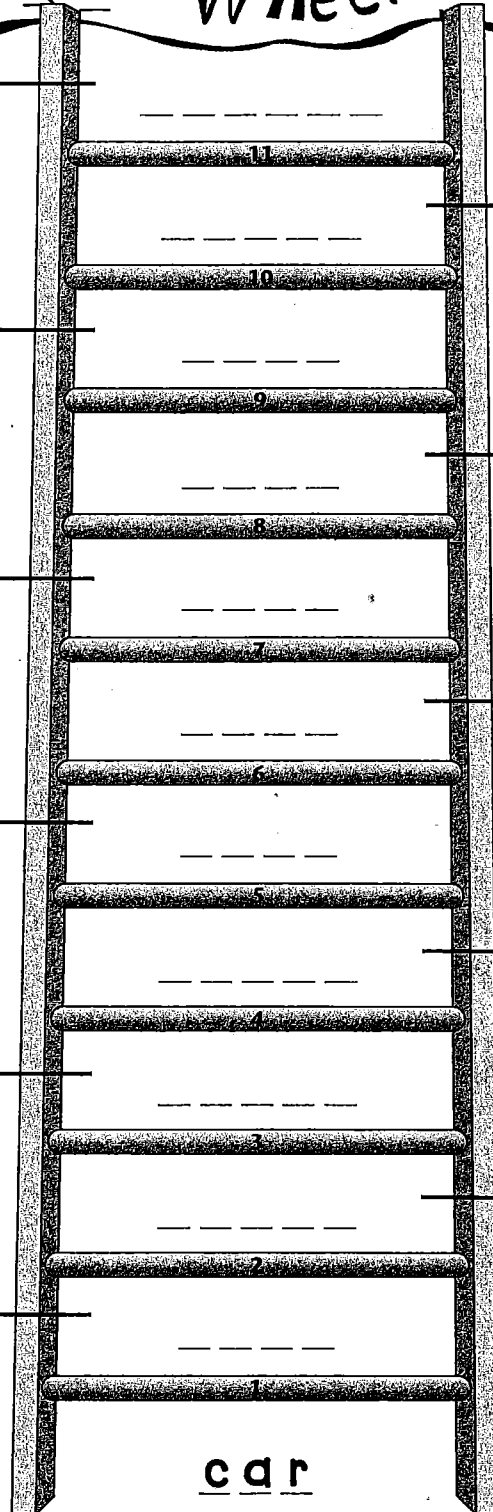
Someone who goes into water headfirst.
Add one letter.

Short for "David."
Change one letter.

A kind of rabbit.
Change one letter.

Another word for pointy.
Change one letter.

To frighten.
Add one letter.



c a r

Fiction Responses

Which character do you like the most in your book? Why?

2. What do you predict will happen next in this story? What information in the text helped you make that prediction?
3. What is the main problem of the story? If you know, how was the problem solved?
4. Would you like to be a character in this story? Why or why not?
5. How do you feel about this story? Would you recommend it to someone else? Why or why not?
6. Summarize what you read today. What were the most important events? Did you learn anything new about the characters?
7. Is what you read believable? Why or why not?
8. Pretend you are interviewing the main character of the story. What two questions would you ask them?
9. If you could trade places with one of the characters who would it be? Why?
10. Is there anything you would change about this story? What would it be? Why would you change it?

Non Fiction Responses

1. What is the selection you read mainly about?
2. What did you learn while reading?
3. Why did the author probably write this selection? How do you know?
4. What was the main idea of what you read? What were the supporting details that told you more about the main idea?
5. How and where could you find out more information about the topic read about today?
6. What else would you like to know about the topic you read about?
7. Were there any text features that helped you better understand your reading? What were they and how did they help you?
8. What did you find interesting as you were reading today?
9. What do you remember most about what you read?
10. Did you find an interesting word while you were reading? What was it? Use a dictionary to find out its meaning and write a sentence of your own using the interesting word that you found.

Pick four questions to answer in the boxes below. Be sure to include the number of the question you are answering on the line. You may not answer the same question more than once and your response should fully answer the question.

Fiction/Non Fiction Question Number: _____

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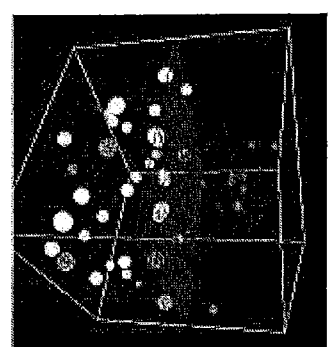
Fiction/Non Fiction Question Number: _____

Egg-citing Osmosis

By Cindy Grigg



1 **Osmosis** is the movement of water from a region of high water concentration through a semi-permeable membrane to a region of low water concentration. Semi-permeable means that the membrane lets certain substances pass through it into and out of the cell. Osmosis is an important topic in biology because it is the main way that water is transported into and out of cells. Osmosis is a type of passive transport. The cell does not need to use any energy to carry out osmosis.



2 Here is a great experiment to do at home. Start with a raw egg, an animal cell. Put it into a clear glass or plastic container. Pour in white vinegar until the egg is covered with the vinegar. Let the egg sit in the vinegar overnight. Next, take the egg out carefully and gently wash it under running water. The shell should be gone, and the membrane containing the egg is left. Vinegar is an acid, and it will dissolve the calcium carbonate of the shell. Measure the egg with a cloth tape measure. Handle the egg gently because it is easy to break the membrane, and your experiment will be over too soon. Write down the circumference of the egg so you don't forget it. Rinse out the vinegar container and dry it. Carefully put the egg back into the container. Pour in enough white syrup to cover the egg. Wait two days. Now, look into the container. What do you see?

3 You will see water floating on top of the white syrup. At the sink, take the egg out of the syrup and carefully rinse it under running water. The egg is smaller, wrinkled, and harder. Use the cloth tape measure and measure the circumference. You will find that the egg got much smaller! Why? Osmosis is the answer. Eggs have a great deal of water in them. Syrup has less water. The water inside the egg moved through the membrane, and you saw it floating on top.

4 Many plant cells perform osmosis. Plant cells store water in a large central vacuole. This stored water is what makes a plant "stand up." When we forget to water our houseplants, they may wilt because the cells shrink as the plant uses up its stored water. The plant will actually fall over. When we water the plant, the roots take up the water, and it moves through the cells by osmosis. If we're lucky, the plant will stand up again. Sometimes the plant will die if it has been without water for too long.

Name _____



Date _____

Egg-citing Osmosis

1. What is osmosis? <input type="radio"/> A A type of active transport <input type="radio"/> B A type of passive transport <input type="radio"/> C The movement of water from a region of high water concentration through a semi-permeable membrane to a region of low water concentration <input type="radio"/> D Both B and C	2. What does semi-permeable mean? <input type="radio"/> A Certain substances can pass through <input type="radio"/> B Nothing can pass through <input type="radio"/> C Only water can pass through
3. Osmosis does not cost the cell any energy. <input type="radio"/> A False <input type="radio"/> B True	4. Why does vinegar dissolve egg shell? <input type="radio"/> A Vinegar is a base that will burn the shell off. <input type="radio"/> B Vinegar is a liquid that washes the shell away. <input type="radio"/> C Vinegar is an acid that will dissolve the shell.
5. What happens to the egg after two days in corn syrup? <input type="radio"/> A The egg gets bigger. <input type="radio"/> B The egg gets smaller, wrinkled, and harder. <input type="radio"/> C The egg gets smaller.	6. Why do you see the results that you do in the egg experiment? <input type="radio"/> A The egg gets smaller and wrinkled because water passes from inside the egg into the syrup. <input type="radio"/> B The egg gets bigger because water passes from the syrup into the egg. <input type="radio"/> C The egg doesn't change at all because nothing can pass through the egg.
7. What happens to a plant that doesn't get enough water? <input type="radio"/> A The plant loses water by osmosis and wilts. <input type="radio"/> B The plant wilts because of condensation. <input type="radio"/> C The plant uses up its stored water and wilts.	8. Why is osmosis important in biology? <input type="radio"/> A Because plants use osmosis to get water <input type="radio"/> B Because osmosis happens in human bodies <input type="radio"/> C Because it is the main way that water is transported into and out of cells <input type="radio"/> D All of the above

Name _____



Date _____

Describe what osmosis is and give an example of it.

Egg-citing Osmosis

[illegible]

Diffusion

By Cindy Grigg



1 Why do we smell bread baking throughout the house? The answer is diffusion. A good way to describe diffusion is the moving of molecules from a place where they are concentrated close together to a place where they are less concentrated or farther apart. When molecules are spread out evenly, diffusion seems to stop.

2 Smells travel in the air by diffusion. Because molecules are always moving, some molecules leave the bread as it is baking. They are vented with the excess heat from the oven. These tiny molecules of bread travel through the air throughout the house to our noses.

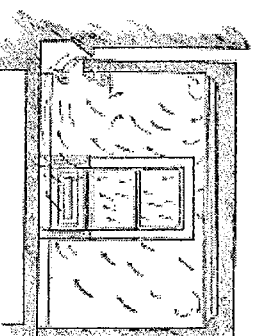
3 Have you ever passed by a bakery and noticed the delicious smells down the street from it? If the wind is blowing, there will be more mixing of the molecules in the air. That can either make the smell reach you sooner, or it can spread the molecules out so that you don't notice the smell as much. Since our brains are used to the smell of air, we don't smell the oxygen, nitrogen, or carbon dioxide. Instead, we smell the other molecules mixed with our air. This is why we smell the bread baking, smoke, perfume, or other smells.

4 **Diffusion is the movement of molecules from an area of high concentration to an area of low concentration** by means of random molecular motion. The Kinetic Theory of Matter says that all matter is made of small particles that are in constant motion. This random motion causes molecules of unlike substances to mix. Diffusion can be thought of as a migration of molecules from their "homeland" (where there are more of them) to a "new country" (where there are less of them.) To help you remember this:

Diffusion, diffusion, diffusion GO, GO, GOES,
From an area of high concentration to LOW, LOW, LOW.

5 Molecules diffuse in liquids as well. You can easily see diffusion happening when you mix powdered drink mix. Fill a pitcher with water. Let it sit on the counter until the water settles. Slowly add the powdered drink mix, but do not stir. Watch what happens in the water. Color will start to swirl through the water until the entire pitcher is colored. What made it mix all by itself? It is because molecules are always in motion. Even though it looks as if the water is still, the molecules of water and the powder are in motion, and this motion causes the two different substances to mix.

6 Water is very important to all living things because a large percentage of a cell is water. The movement of water into and out



of a cell by diffusion through a membrane is common. This special kind of diffusion is called osmosis. **Osmosis** is the movement of water across a semi-permeable membrane. Semi-permeable (sem-ee-pur-nee-uh-buhl) means that the cell membrane has pores or openings that let some things, but not all, pass through it. Like other kinds of diffusion, osmosis keeps going until the concentration of water on one side of the cell membrane is the same as on the other side. Many substances will dissolve in water. Water can diffuse through the cell membrane carrying dissolved materials into and out of the cell. This is why water is so very important to cells.

⁷ Another place where diffusion happens in the human body is in the lungs. We need to get oxygen from the air into our blood. We need to remove the waste gas carbon dioxide from blood into the air. This gas exchange happens in the alveoli in the lungs by diffusion. The alveoli are adapted to make the gas exchange in lungs happen easily and efficiently. The gases move by diffusion from where there is a high concentration to where there is a low concentration. This does not require any energy from the cell.

⁸ In some cases molecules pass through a cell membrane in a direction different from diffusion. The molecules go from an area of low concentration to high concentration. For this type of movement, the use of energy by the cell is needed. It is called active transport. Think of riding a bicycle uphill. You must work hard and be very active to move the bicycle up the hill. This is just like active transport in the cell. The cell must use energy to move the molecules in the other direction.

⁹ Diffusion and osmosis are both forms of passive transport. Passive transport is movement of a chemical substance across a cell membrane without the cell having to use energy. It is helpful to any living thing to conserve energy whenever it can. Diffusion is called passive transport because it happens without the cell having to use energy to cause it. Think of riding a bicycle downhill. You don't have to waste any energy to make the bicycle go. You are passive or not actively having to work to make the bicycle move.

Name _____

Date _____



Diffusion

1. What is diffusion? <input type="radio"/> (A) Movement of molecules from an area of high concentration to an area of low concentration <input type="radio"/> (B) Movement of water from an area of low concentration to high concentration <input type="radio"/> (C) Movement of air from an area of high concentration to an area of low concentration	2. What is the Kinetic Theory of Matter? <input type="radio"/> (A) Only gases are made of small particles that are in constant motion. <input type="radio"/> (B) All matter is made of small particles that are in constant motion. <input type="radio"/> (C) Liquids and gases are made of small particles that are in constant motion.
3. What causes diffusion? <input type="radio"/> (A) Random movement of molecules <input type="radio"/> (B) Semi-permeable membranes <input type="radio"/> (C) Low concentrations	4. What is osmosis? <input type="radio"/> (A) A special kind of diffusion <input type="radio"/> (B) The movement of water through a semi-permeable membrane <input type="radio"/> (C) A form of passive transport <input type="radio"/> (D) All of the above
5. What does "semi-permeable" mean? <input type="radio"/> (A) Something that will let all things pass through it <input type="radio"/> (B) Something that will let some things pass through it but not all things <input type="radio"/> (C) Something that will let only water pass through it	6. What is active transport? <input type="radio"/> (A) Movement of molecules from an area of higher concentration to an area of lesser concentration <input type="radio"/> (B) Movement of molecules through a membrane that does require energy <input type="radio"/> (C) Movement of molecules through a membrane that does not require energy
7. What is passive transport? <input type="radio"/> (A) Movement of molecules from an area of higher concentration to an area of lesser concentration <input type="radio"/> (B) Movement of molecules through a membrane that does require energy <input type="radio"/> (C) Movement of molecules through a membrane that does not require energy	8. How are active and passive transport different? <input type="radio"/> (A) Active transport requires energy; passive transport does not. <input type="radio"/> (B) Active transport moves molecules in the opposite direction as compared to passive transport. <input type="radio"/> (C) Both A and B <input type="radio"/> (D) None of the above

Name _____



Date _____

Diffusion

Describe one example of diffusion. What two kinds of molecules are interacting, and how do they interact?

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